

WHAT IS CLAIMED IS:

1. a musical performance self-training apparatus for supporting a player by displaying a performance instruction information on a display means, comprising:

5 a unit designating means for designating a unit from the plural units, the units constitute a music to be performed and each unit includes a predetermined size of musical tone information, and

a performance instruction information generating means
10 for generating the performance instruction information based on the musical tone information of the unit which is designated by the unit designating means.

15 2. The musical performance self-training apparatus according to claim 1, further comprises a lesson menu generating means for generating an image information of a lesson menu which has a score of the music to be played and the units corresponding to the score, then output the image information to the display
20 means, wherein

the unit designating means designates a unit automatically, which unit corresponding to the score of the performance instruction information to be displayed next.

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3. The musical performance self-training apparatus according to claim 2, wherein

the lesson menu having the units which are provided to include wider range of musical tone information, as the skill level become higher, are displayed according to the skill level corresponding to the score, and

5 the unit designating means designates a unit to be played at the earliest timing, in which performance thereof has not reached a predetermined acceptable standard, of the units on the lesson menu, as a unit of which performance instruction is to be displayed next, and when performance of all units in the
10 same skill level has reached the acceptable standard, the unit of which performance instruction is to be displayed next is selected from units in the upper ranking skill level than the current skill level and designated.

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4. The musical performance self-training apparatus according to claim2, wherein

the lesson, menu having the units which are provided to include wider range of musical tone information, as the skill
20 level become higher, are displayed according to the skill level corresponding to the score, and

the unit designating means designates a unit to be played at the earliest timing, in which performance thereof has not reached a predetermined acceptable standard, of the units on
25 the lesson menu, as a unit of which performance instruction is to be displayed next, and when performance of all units in the lower-ranking skill level included in a unit of the higher

ranking skill level has reached the acceptable standard, the higher ranking unit is designated as the unit of which performance instruction is to be displayed next.

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5. The musical performance self-training apparatus according to claim2, wherein

the unit designating means being constructed so as to be able to operate selectively in an automatic mode in which designation of the unit is automatically performed according to predetermined progress, or in a manual mode in which an optional unit can be designated by manual operation.

15 6. The musical performance self-training apparatus according to claim5, wherein

the image information which is generated by the lesson menu generator further includes an image information of a mode selection switch for selecting the automatic-mode or manual mode, and

the automatic-mode or manual mode is selected by the mode selection switch displayed on the display.

25 7. The musical performance self-training apparatus according to claim 6, comprising lesson interruption means for allowing the lesson menu to be displayed in place of display

of performance instruction for selection of the manual mode,
while the performance instruction is given in the auto-mode.

5 8. The musical performance self-training apparatus
according to claims 2, wherein the display means separately
displays a trained unit and a unit whose note information is
to be displayed next, at the time of displaying the lesson menu.

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9. The musical performance self-training apparatus
according to claims 2, wherein the display means separately
displays unit which come up to a evaluation standard and unit
which does not come up to the evaluation standard, at the time
15 of displaying the lesson menu.

10. The musical performance self-training apparatus
according to claim 8, comprising result processing means which
20 evaluates the performance result of the designated unit, and
the display means displays the evaluation in the trained unit,
at the time of displaying the lesson menu.

25 11. The musical performance self-training apparatus
according to any one of claims 1,2, and 5, wherein units having
the same content is managed collectively as the same unit.

12. The musical performance self-training apparatus according to claims 2 or 5, comprising means for changing the size of the unit displayed in the lesson menu by giving an instruction input through the lesson menu.

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13. The musical performance self-training apparatus according to claims 1, 2, and 5, comprising
a musical performance judgment apparatus for evaluating
10 musical performance, wherein the judgment apparatus further, comprising

a performance result storage means for storing information relating to performance timing as a result of musical performance;

15 a judgment means for comparing the information relating to the performance timing with the information relating to the performance timing included in the performance instruction and detecting the difference between these; and

an evaluation means for evaluating the performance,
20 corresponding to the difference detected by the judgment means.

14. The musical performance self-training apparatus according to claim 13, wherein a plurality of items are stored
25 in the performance result storage means for each played note, as the information relating to the performance timing, and
the evaluation means extracts the items evaluated best

of the plurality of items with respect to all played notes, to evaluate the musical performance according to the mean value thereof.

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15. The musical performance self-training apparatus according to claims 13 or 14, wherein the information relating to the performance timing includes key-on time, key-off time, gate time and step time.

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16. The musical performance self-training apparatus according to claim 15, wherein the information relating to the performance timing further includes a value of ratio between
15 the actual performance time and the performance time instructed by the performance instruction.

17. The musical performance self-training apparatus
20 according to claims 14, wherein the evaluation of the musical performance is the evaluation for each information of a plurality of items relating to the performance timing, and
the musical performance judgment apparatus further comprises means for graphically displaying evaluation for each
25 of the information comprehensively.

18. The musical performance self-training apparatus according to claim 17, wherein the graphic displayed evaluation is displayed on one displayed image together with the performance instruction display.

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19. A musical performance self-training apparatus for giving a performance instruction by displaying performance instruction information created based on the performance data, comprising:

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a score view mode display means for displaying performance instruction information in which performance timing information is added to the note information arranged on a staff notation;

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a piano roll view mode display means which associates a mark having a length corresponding to the length of the note with a keyboard figure and displays the performance timing with a distance between the mark and the keyboard figure; and

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a changeover means for optionally selecting either the score view mode display means or the piano roll view mode display means.

20. The musical performance self-training apparatus according to claim 19, wherein the score view mode display means further comprising a display means for displaying the keyboard figure, and display information indicating a key which should

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be now being played on the keyboard figure.

21. The musical performance self-training apparatus
5 according to claims 19 or 20, further comprising superimpose
mode display means which displays the information displayed by
the score view mode display means and the information displayed
by the piano roll view mode display means on one displayed image.

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22. The musical performance self-training apparatus
according to claims 19 or 20, further comprising means for
evaluating the performance based on the agreement degree of the
played notes with the performance instruction, wherein the
15 score view mode display means and the piano roll view mode
display means are constructed so as to display the evaluation
together.

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23. The musical performance self-training apparatus
according to claim 21, comprising means for evaluating the
performance based on the agreement degree of the played notes
with the performance instruction, wherein the score view mode
display means, the piano roll view mode display means and the
25 superimpose mode display means are constructed so as to display
the evaluation together.

24. The musical performance self-training apparatus according to claim 22, wherein the score view mode display means and the piano roll view mode display means are constructed so as to add a check to the note information or the mark of the
5 note which has not been played as instructed, and display an annotation therefore together.

25. The musical performance self-training apparatus
10 according to claim 23, wherein the score view mode display means, the piano roll view mode display means and the superimpose mode display means are constructed so as to add a check to the note information or the mark of the note which has not been played as instructed, and display an annotation therefore together.

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26. A musical performance self-training apparatus constructed such that performance instruction information generated based on performance data is displayed to give a
20 performance instruction, and when notes are played at a pitch as instructed by the performance instruction, process proceeds to the next performance instruction, wherein the musical performance self-training apparatus comprises:

a played note storage means for storing played notes;
25 a means for suspending the progress of performance instruction when a note is not played at a pitch as instructed by the performance instruction;

a performance data row detection means for searching a performance data row whose array coincides with a plurality of played notes including at least the newest played notes stored in the played note storage means, from the performance data;
5 and

a control means for resuming the progress of performance instruction from the row subsequent to the performance data row, when the coincident performance data row is searched.

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27. The musical performance self-training apparatus according to claim 26, wherein the played note storage means stores a predetermined number of played notes after the played note, which has not been played at a pitch as instructed by the
15 performance instruction.

28. The musical performance self-training apparatus according to claims 26 or 27, comprising performance evaluation
20 means for evaluating the performance depending on the difference between the note instructed by the performance instruction and the played note stored in the played note storage means.

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29. The musical performance self-training apparatus according to claim 26, comprising performance evaluation means

for evaluating the performance depending on the difference between the note instructed by the performance instruction and the played note stored in the played note storage means, wherein

the performance evaluation means conducts evaluation
5 every time the note is played at a pitch as instructed by the performance instruction, and when the note is not played at a pitch as instructed by the performance instruction, conducts evaluation with respect to the performance data row, when the performance data row is detected.

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30. A musical performance self-training apparatus which gives a performance instruction by displaying performance instruction information generated based on performance data,
15 comprising:

a means for displaying an advice icon, which informs the existence of advice information for musical performance, together with the performance instruction information; and

a means for searching and displaying the advice
20 information relating to the performance instruction information at a position where the advice icon is displayed, in response to the operation of the advice icon.

25 31. The musical performance self-training apparatus according to claim 30, wherein the advice information is searched through the Internet.